

AMENDMENTS TO THE CLAIMS

Please amend Claims 5, 6, 9 and 11; and add new Claims 14-19 as follows.

LISTING OF CLAIMS

1. (cancelled)

2. (previously presented) The air conditioner according to Claim 9, wherein said drain pipe is provided at a position under a tilted lower end of said cooling heat exchanger.

3.-4. (cancelled)

5. (currently amended) The air conditioner [[unit]] according to Claim 9, wherein said tubes are disposed to extend in a direction approximately parallel to an introduction direction of said air being introduced into said space.

6. (currently amended) The air conditioner [[unit]] according to Claim 9 wherein:

said cooling heat exchanger is tilted relative to the horizontal surface by a tilt angle; and

said angle tilt is in a range of 10° - 30°.

7.-8. (cancelled)

9. (currently amended) An air conditioner for a vehicle having a passenger compartment, the air conditioner comprising:

a blower unit for blowing air, said blower unit being disposed in the passenger compartment at a position offset from a center of an instrument panel in a vehicle width direction; and

an air conditioning unit, for adjusting an air state to be blown into the passenger compartment, said air conditioning unit being disposed generally at the center of the instrument panel at a downstream air side of said blower unit, said air conditioning unit including:

a case forming an air passage through which air blown by said blower unit flows into the passenger compartment, said case having a first opening for blowing air toward an upper side of the passenger compartment, and a second opening for blowing air toward a lower side of the passenger compartment,

a cooling heat exchanger for cooling air, said cooling heat exchanger being disposed within said case approximately horizontally to form a space under said cooling heat exchanger in said case, in such a manner that air from said blower unit is introduced into said space approximately horizontally and passes through said cooling heat exchanger from below upwardly,

a heating heat exchanger for heating air from said cooling ~~[[hear]]~~ heat exchanger, said heating heat exchanger being disposed approximately horizontally at an upper side of said cooling heat exchanger to heat air from said cooling heat exchanger so that a temperature of air to be blown into said first opening and said second opening is adjusted,

a mode switching member, disposed at a downstream air side of said heating heat exchanger, for selectively opening and closing said first opening and said second opening, and

a drain ~~[[pipe]]~~ opening in direct communication with said space in said case through which condensed water generated by said cooling heat exchanger is discharged to an outside of said case, said drain ~~[[pipe]]~~ opening being provided in said case at a most bottom position ~~[[at]]~~ of said case directly under a lower side surface of said cooling heat exchanger on ~~an upstream~~ a downstream air side of the lower side surface, wherein:

said cooling heat exchanger is tilted relative to a horizontal surface;

said cooling heat exchanger includes a plurality of tubes disposed in parallel with each other and a plurality of corrugated fins each of which is disposed between adjacent tubes;

said case has an air inlet disposed in a substantially vertical direction from which said air blown by said blower unit is introduced into said space under said cooling heat exchanger in a generally horizontal direction;

said air inlet is provided in said case at a position approximately directly under an upper end portion of said cooling heat exchanger adjacent said blower unit;

said blower unit includes an inside/outside air switching portion for introducing air, and a blower having a fan for blowing said air introduced from said inside/outside air switching portion and a motor for rotating said fan;

a rotation axis of said fan is in ~~[[a]]~~ the substantially vertical direction;
[[and]]

said inside/outside air switching portion is provided above said fan[.];

the vehicle has a partition plate for partitioning the passenger compartment and an engine compartment from each other;

the cooling heat exchanger is arranged adjacent to the partition plate;

the air conditioner further comprises a refrigerant pipe member through which refrigerant is introduced into and discharged from a heat exchanging portion of the cooling heat exchanger, and the refrigerant pipe member protrudes toward the engine compartment from a side surface of the cooling heat exchanger which is adjacent to the partition plate; and

the refrigerant pipe member penetrates through the partition plate and protrudes into the engine compartment when being mounted on the vehicle.

10. (previously presented) The air conditioner according to Claim 9, wherein said space is provided such that said air blown by said blower unit is introduced into said space approximately horizontally in said vehicle width direction.

11. (currently amended) An air conditioner for a vehicle having a passenger compartment, said air conditioner comprising:

a case forming an air passage;

a blower unit for blowing air, said blower unit being disposed at a first side of said case;

a cooling heat exchanger for cooling air, said cooling heat exchanger extending generally horizontally within said case to define a first end adjacent said

blower unit and a second end adjacent a second side of said case, said second side of said case being opposite to said first side of said case, said second end of said cooling heat exchanger being lower than said first end of said cooling heat exchanger, said cooling heat exchanger defining a space between said case and said cooling heat exchanger, said blower unit blowing air into said space in a direction from said first end to said second end of said cooling heat exchanger, said blown air passing through said cooling heat exchanger upwardly from said space;

a heating heat exchanger for heating said blown air from said cooling heat exchanger, said heating heat exchanger being disposed generally horizontal at an upper side said cooling heat exchanger;

a drain [[pipe]] opening in direct communication with said space in said case through which condensed water generated by said cooling heat exchanger is discharged outside of said case, said drain [[pipe]] opening being disposed at said second side of said case opposite to said blower unit adjacent said second end of said cooling heat exchanger; wherein:

said case has an air inlet disposed in a substantially vertical direction from which said air blown by said blower unit is introduced into said space under said cooling heat exchanger in a generally horizontal direction;

said air inlet is provided in said case at a position approximately directly under said first end of said cooling heat exchanger;

said blower unit includes an inside/outside air switching portion for introducing air, and a blower having a fan for blowing said air introduced from said inside/outside air switching portion and a motor for rotating said fan;

a rotation axis of said fan is in [[a]] the substantially vertical direction;
said inside/outside air switching portion is provided above said fan; [[and]]
said blower unit is disposed such that air blown from said fan is
approximately horizontally introduced into said space through said air inlet~~[[.]]~~;

the vehicle has a partition plate for partitioning the passenger compartment and an engine compartment from each other;

the cooling heat exchanger is arranged adjacent to the partition plate;

the air conditioner further comprises a refrigerant pipe member through which refrigerant is introduced into and discharged from a heat exchanging portion of the cooling heat exchanger, and the refrigerant pipe member protrudes toward the engine compartment from a side surface of the cooling heat exchanger which is adjacent to the partition plate; and

the refrigerant pipe member penetrates through the partition plate and protrudes into the engine compartment when being mounted on the vehicle.

12. (previously presented) The air conditioner according to Claim 9, wherein said heating heat exchanger has one end that is disposed adjacent a tilted top end portion of said cooling heat exchanger.

13. (previously presented) The air conditioner according to Claim 11, wherein said heating heat exchanger has one end that is disposed adjacent a tilted top end portion of said cooling heat exchanger.

14. (new) The air conditioner according to Claim 9, wherein the cooling heat exchanger further includes an expansion valve for expanding refrigerant flowing into the heat-exchanging portion, the expansion valve is provided in the passenger compartment integrally with the heat exchanging portion in the cooling heat exchanger, and the refrigerant pipe is integrated with the expansion valve.

15. (new) The air conditioner according to Claim 11, wherein the cooling heat exchanger further includes an expansion valve for expanding refrigerant flowing into the heat-exchanging portion, the expansion valve is provided in the passenger compartment integrally with the heat exchanging portion in the cooling heat exchanger, and the refrigerant pipe is integrated with the expansion valve.

16. (new) The air conditioner according to Claim 9, wherein the expansion valve integrated with the heat exchanging portion of the cooling heat exchanger directly contact the partition plate through a sealing member.

17. (new) The air conditioner according to Claim 11, wherein the expansion valve integrated with the heat exchanging portion of the cooling heat exchanger directly contact the partition plate through a sealing member.

18. (new) The air conditioner according to Claim 9, wherein the refrigerant pipe member extends from the side surface of the cooling heat exchanger to be approximately vertical to a surface of the partition plate.

19. (new) The air conditioner according to Claim 11, wherein the refrigerant pipe member extends from the side surface of the cooling heat exchanger to be approximately vertical to a surface of the partition plate.